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MCDERMOTT, WILL & EMERY			FASTOVSKY, LEONID M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)

5) Notice of Informal Patent Application (PTO-152)

6) 🔲 Other: \_\_\_

## **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1- 4, 6-8, 12-13, 22-24, 26-29 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauer in view of Maxson (1,697,607) and Pritzker.

With regard to claims 1-2, 4, 6-8, 22-23 and 26-28, Moldenhauer teaches a radiation source comprising a base 7, a curved parabolic reflector 2, two pins 6 passing through the base 7, a first pin having a first portion, that extends at an angle with respect to the axis, a second pin having a second portion which extends at an angle with respect to the axis, a filament 11 helically wounded around the pins such that pins are located between the filament and the axis of the reflector, a window 3, and an inert gas contained within the enclosure, and the coil 12 –furthest from the base is offset from the axis (related to claim 32).

Further, Moldenhauer discloses the filament, the filament helically wound filament and has a diameter 12 that decreases along the axis and that a width of the filament 11 is greater then space between adjacent coils 11 and 12 according to the drawing.

However, Moldenhauer does not disclose a material of the filament.

Maxson discloses a radiation source having a flat, helically wound filament 10 (Fig. 1-5) made out of nickel steel (col. 1, lines 46-54). It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer to include a flat, helically wound filament made out of nickel steel as taught by Maxson in order to provide suitable resisting material which will not deteriorate under heat (col. 1, lines 46-54 and col. 2, line 1).

In addition, since Moldenhauer does not disclose specifically about the space between coils in the specification, it would have been obvious to one having ordinary skill in the art to modify the invention of Moldenhauer in view of Maxson to include in the helically wound filament having a diameter decreasing along the axis a width greater then the space between adjacent coils as taught by Pritzker (Fig. 1) as a matter of design choice, since the applicant has not disclose that this type of filament solved any problems or is for any particular purpose, and it appears the invention would perform equally well with the existing filament. Moreover, as stated on Page 6 (Paragraph 25), the filament can be provided with a constant diameter.

With regard to claims 3, 12-13, and 29, Moldenhauer and Maxson do not disclose an elliptic reflector comprising a non- ferrous metal, and coated or plated with at least one of the aluminum, gold and silver, and that the second pin includes a third portion and a fourth portion. It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer and Maxson to use materials and an elliptic reflector as a matter of design choice, since the applicant has not disclose that these

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materials and elliptic reflector solved any stated problems or is for any particular purpose, and it appears that the invention would perform equally well with existing materials and reflector's shape.

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As for claims 31 and 33, Maxson discloses that the coil closest to the base is aligned with the axis. It would have been obvious to modify Moldenhauer's invention to include the coil closest to the base aligned with the axis and use just two coils of Maxson's invention as a design choice, since the applicant has not disclose that this type of filament solved any problems or is for any particular purpose, and it appears the invention would perform equally well with the existing filament.

3. Claims 5, and 14-21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Moldenhauer in view of Maxson and Pritzker and further in view of Boland et al and George et al.

Moldenhauer in view of Maxson and Pritzker discloses substantially the claimed features including a radiation source comprising a base, a curved reflector, two pins passing through the base, a filament helically wounded around the pins, and a window. However, Moldenhauer in view of Maxson and Pritzker does not disclose that the window is made out of different materials, filament textured features, and emissions cutoff wavelength. Boland et al shows that window includes a sapphire and germanium (Col. 3, lines 50-65), George et al shows filament textured features (Col. 2, [11]), and Boland et al shows a cut-off wavelength (Col. 2, lines 50-65). It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer in view of Maxson to use materials and a cut-off wavelength size as

taught by Boland and filament textured features as taught by George et al in order to select an infrared wavelength spectrum as required by the user.

4. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauer in view of Maxson and Pritzker as applied to claims 1-4, 6-13, 22-23 and 25-29 and further in view of Karlsson.

Moldenhauer in view of Maxson and Pritzker discloses substantially the claimed invention, but does not disclose pin materials. Karlsson shows pins 4,5 are made from Kovar material (col. 6, lines 56-59). It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer in view of Maxson and Pritzker to use Kovar as taught by Karlsson as a functional equivalent material.

## Response to Arguments

Applicant's arguments filed 8/18/05 have been fully considered but they are not persuasive. Moldenhauer in view of Maxson discloses that the filament forms at least two coils and at least one of the coils - coil 12, that is furthest from the base 7, is offset from the axis that is going through the middle of the radiation source.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 571-272-4778. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RobinEvans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Leonid M Fastovsky

16/26/05

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